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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/687,450 | 10/16/2003 | Nobuyuki Ito | CU-3408 | 8746 |

26530 7590 05/02/2006

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| EXAMINER |
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WU, XIAO MIN

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| ART UNIT | PAPER NUMBER |
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2629

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,450

Applicant(s)

ITO ET AL.

Examiner

XIAO M. WU

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 9-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Friend et al. (US Patent No. 6,429,601).

As to claim 1, Friend discloses an electroluminescent element (Figs. 3 and 4) comprising at least a substrate (17, Fig. 4), an electrode (18a-18d) formed on the substrate and an electric light emitting layer (19a-19d) wherein an area of a light emitting region (19a-19d) changes in an element region (19a-19d) where an electric field is applied to a pair of facing electrodes (18a-d, 20).

As to claim 2, Friend discloses the light emitting region (19a-19d) changes with a change of brightness per unit area.

As to claims 9, 10, Friend discloses the display is driven by a digital gradation driving method in which a low voltage value at which the pixel does not emit light is a non-selected state, and a high voltage value at which the light emitting region within the pixel is saturated is a selected state (see col. 7, lines 41-57).

As to claims 11, 12, Friend discloses the digital gradation driving method is a time divisional gradation driving method, an area divisional gradation driving method or a

Art Unit: 2629

combination of the time divisional gradation driving method and area divisional gradation driving method (see Figs. 7 and 8 and col. 7, lines 19-36).

As to claims 13, 14, Friend discloses that the light-emitting layer of the electroluminescent element is formed by a wet process of an ink-jet printing method (col. 6, lines 22-26).

As to claims 15, 16, Friend discloses a displaying part (19a-19d).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friend et al. (US Patent No. 6,429,601) in view of Ogawa (US 2002/0056838).

As to claims 3-8, it is noted that Friend does not specifically disclose what the thickness of the light emitting is or the thickness is between 10-500 nm. Ogawa is cited to teach an

Art Unit: 2629

electroluminescent display device similar to Friend. Ogawa further discloses that the thickness of the light emitting material is approximately 100 nm (see 0169 at page 8). It would have been obvious to one of ordinary skill in the art to have modified Friend with the features of the thickness of the light emitting material as taught by Ogawa because Ogawa can provide an improvement for simplifying the EL panel.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The US 6,469,450, 6,879,307, 6,956,553, 2003/0142043, 2004/0021136, 2004/0239861 and 2005/0236970 are cited to teach a display device with variable display regions.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to XIAO M. WU whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2629

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

x.w.

April 28, 2006



XIAO M. WU
Primary Examiner
Art Unit 2629